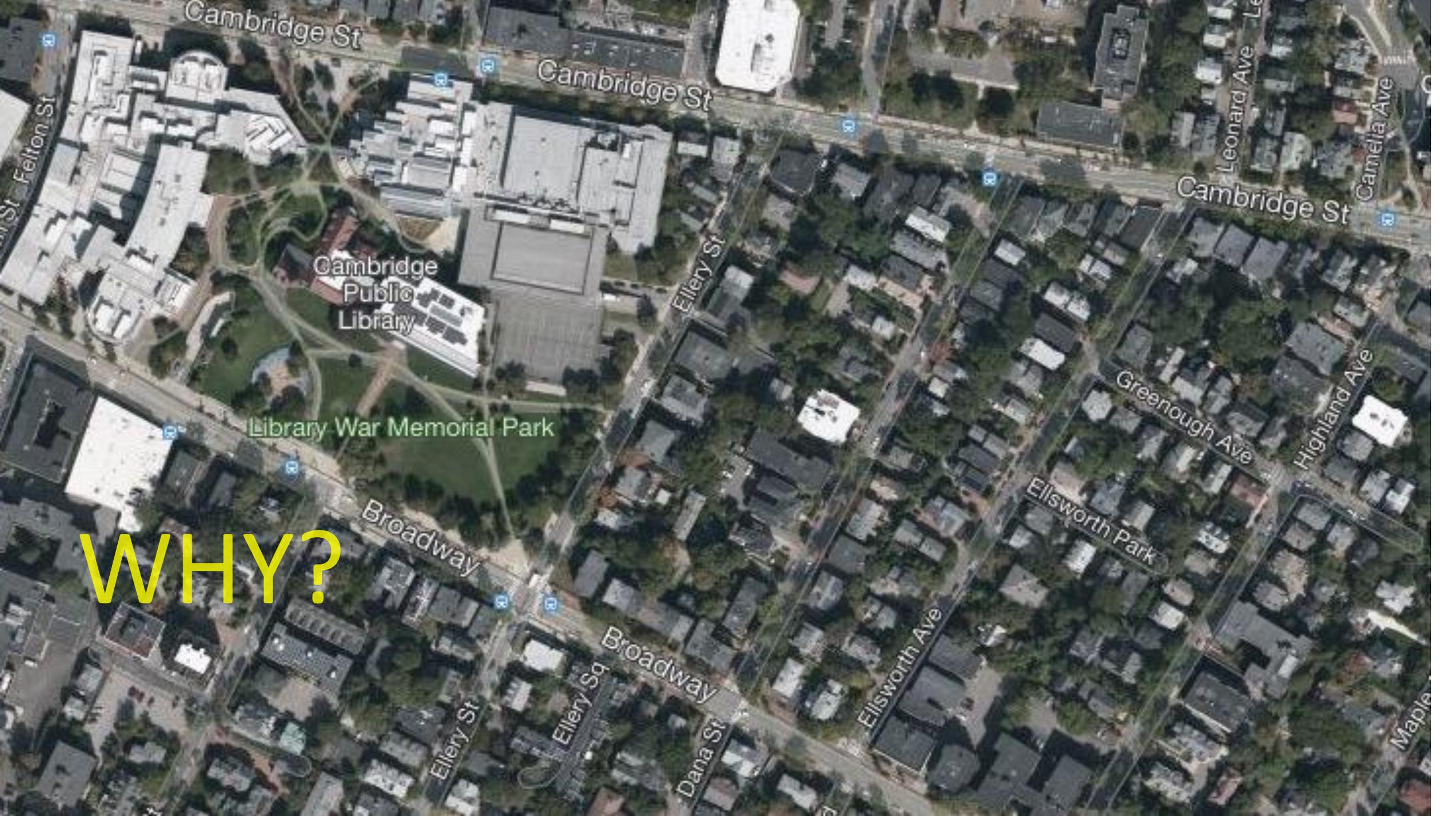


Cambridge
Planning Board Hearing
Feb. 9, 2021

Cambridge Mothers Out Front
PETITION for GREEN ROOFS in Cambridge



Cambridge St

Cambridge St

Cambridge St

Cambridge
Public
Library

Library War Memorial Park

Broadway

Broadway

WHY?

Greenough Ave

Highland Ave

Ellsworth Park

Ellsworth Ave

Ellery St

Ellery Sq

Dana St

Maple

Urgent Need to ACT

Mothers Out Front

Powered by Moms to protect all children from the climate crisis that impacts their health and a livable climate for them tomorrow.



Petition

Petition summary and background	For green roofs on new development and significant rehab of buildings
Petition petitioned for	by Cambridge Mothers Out Front

Printed Name	Signature	Address
Helen Sniively	Helen Sniively	1 Fayette Plain
Mariane Garner	Deane Garner	73 Tremont
Mark Franklin	N. Will	73 Tremont
ABOLYN MATHEWS	Cordyn Mathews	7 TEMPLE ST
ANITA KURAL	Anita Kural	59 MARKET ST
DEL JETTE	Shirley Jette	149 Prospect
ALMA ZASLAVSKY	Alma Zaslavsky	149 Prospect
AUDIA MAJETICH	Audia Majetich	329 CONCORD
ANUETH KRANENBERG	Anueth Kranenberg	51 MAPLE
IVE GOLDEN	Ive Golden	51
ANN DIX	Ann Dix	-
AURORA ZIMM	Laura Zimm	-
EDMAN	Edman	-

Petition to Cambridge, MA City Council

Petition summary and background	For green roofs on new development and significant rehab of buildings
Petition petitioned for	by Cambridge Mothers Out Front

Printed Name	Signature	Address	Comment
AMY OLIVER	Amy Oliver	381 ORCHARD ST	
HERRY OLIVE	Sherry Oliver	49 Orchard St	
PETE HEN FRIESINGER	Pete Hen Friesinger	18 ORCHARD ST	YES, PLS!
goldberg	Goldberg	17 FOUL ST	
Laura	Laura	309 HURON ST	
Wink	Pamela Winters	41 ORCHARD ST	
Virginia Roberts	Virginia Roberts	38A ORCHARD ST	
Lucia Cuddihy	Lucia Cuddihy	172 HARVARD ST	
side	side	100 HENDSDOWN AVE	

Petition to Cambridge, MA City Council

Petition summary and background	For green roofs on new development and significant rehab of buildings of 20,000 sq ft or more
Petition petitioned for	by Cambridge Mothers Out Front

Signature	Address	Comment
Sam Fairbank	221 Mt. Auburn St #705	This is important especially for...
Barbara M Bove	221 Mt. Auburn St #310	Excellent idea
Stevens Smillett	24 Brabson St #3	Great
Ann	12 Trail St	Cambridge
VER	10 CRAIGIE ST.	CAMBRIDGE
Mr. Trueman	4 Hawthorn St.	Cambridge
Deely Ames	221 Mt. Auburn St	Cambridge
Stacy Johnson	32 Hubbard Park Rd	Cambridge
Johnson	32 Hubbard Park Rd	Cambridge
	195 Brattle St.	Cambridge
	244 Brattle St	Cambridge
	Arden Hill	Cambridge

In one week – during the pandemic – more than **450 Cambridge residents** signed their names on the paper Mother Out Front’s Green Roofs petition.

BioSolar Roofs

Panels + Plants

- **Renewable energy**
- **Efficiency of panels increases up to 16%**
- **Plants reduce overheating of panels leading to greater productivity**
- **Shading protects vegetation**



Vegetative Roofs

Meadows + Gardens + Farms

- **Absorb carbon dioxide**
- **Clean pollutants from the air**
- **Cool urban heat islands**
- **Reduce flooding by holding rainwater**
- **Provide habitats for pollinators**



Why ?

Because we've
waited too long.

Already.

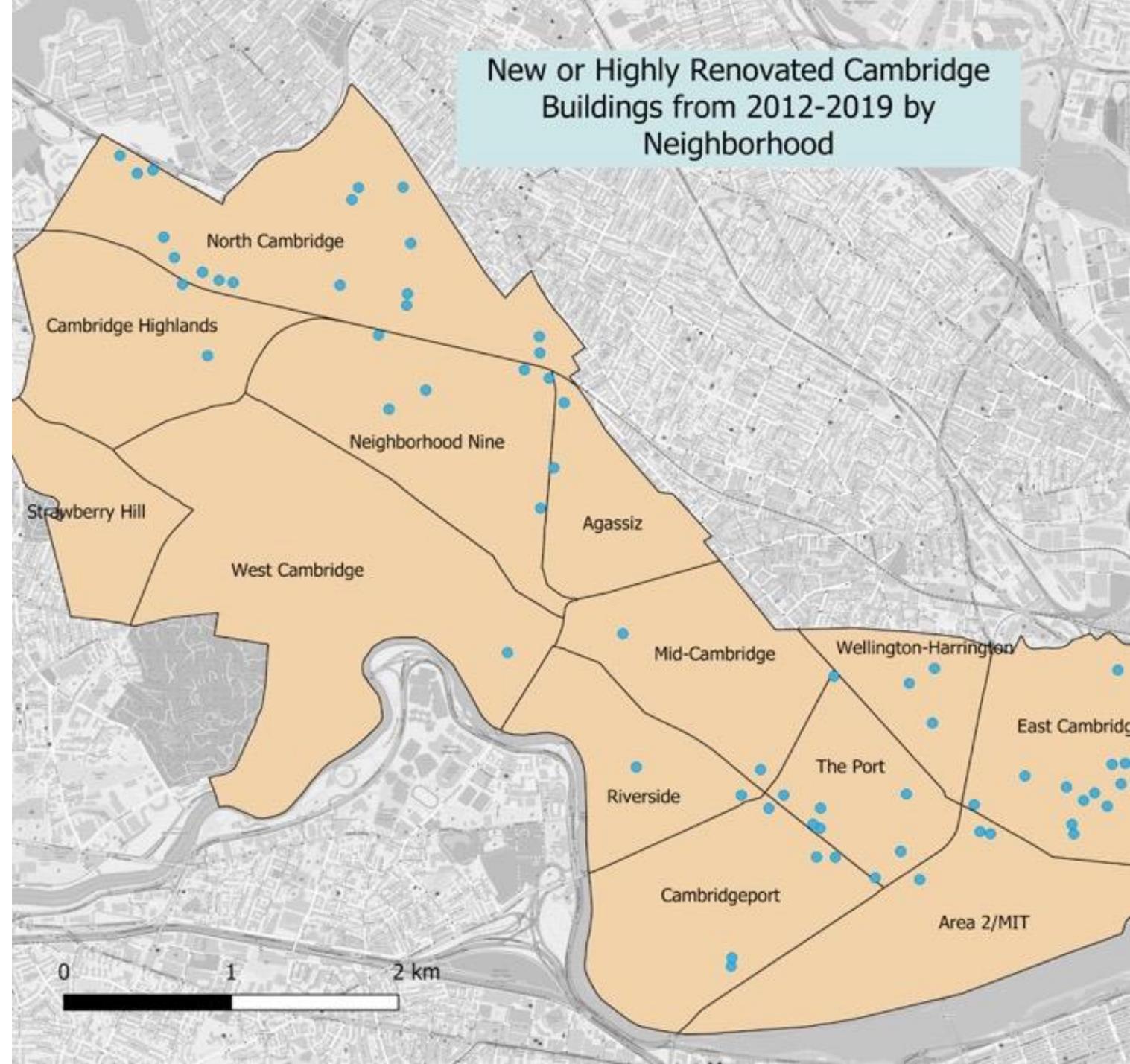


LOST OPPORTUNITY

2012 - Cambridge launches
Green Roof Ordinance

**No Mandate =
0 Green Roofs Created**

1,799,033.88 square feet of
roof space NOW could have
been **GREEN ROOF** space on
total of 68 buildings.





Estimated 550,000 square feet of **GREEN ROOF** space in East Cambridge



Estimated 200,000 square feet of **GREEN ROOF** in The Port.



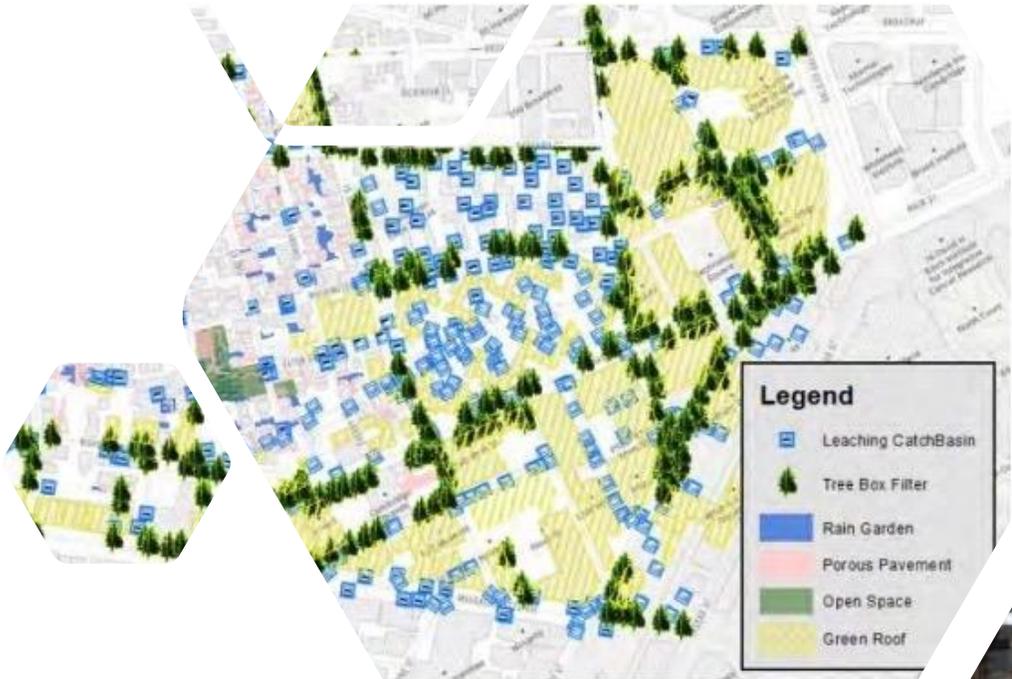
Estimated 550,000 square feet of **GREEN ROOF** space in North Cambridge

Assets, resources & vulnerability at risk for Climate Change impacts



Where Cambridge residents are most at risk due to climate change.

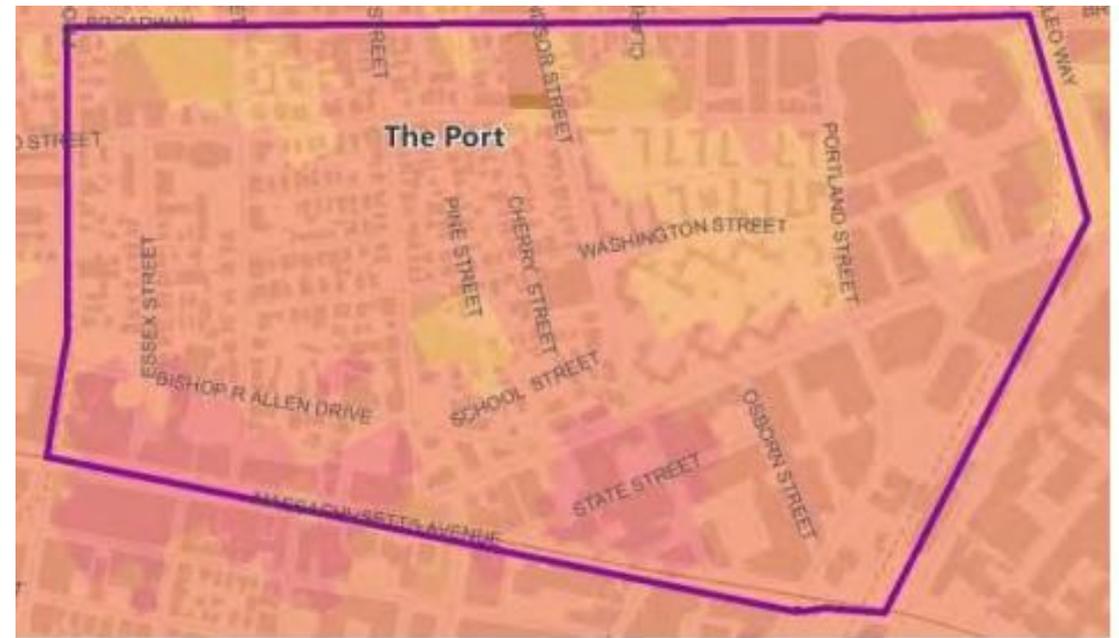
Alternative



THE PORT



AREAS AT RISK OF FLOODING FOR 2070 10-YR. EVENT



URBAN HEAT ISLAND 2030

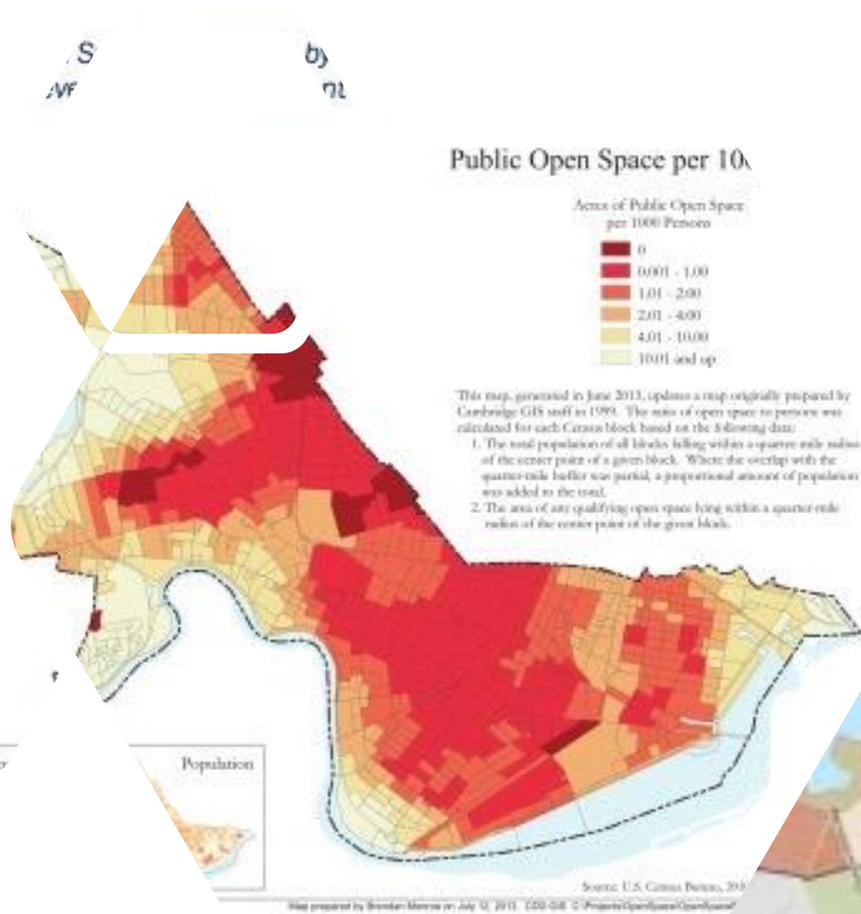


The Port

A 10-year return frequency storm in 2070 will overwhelm existing drainage infrastructure.

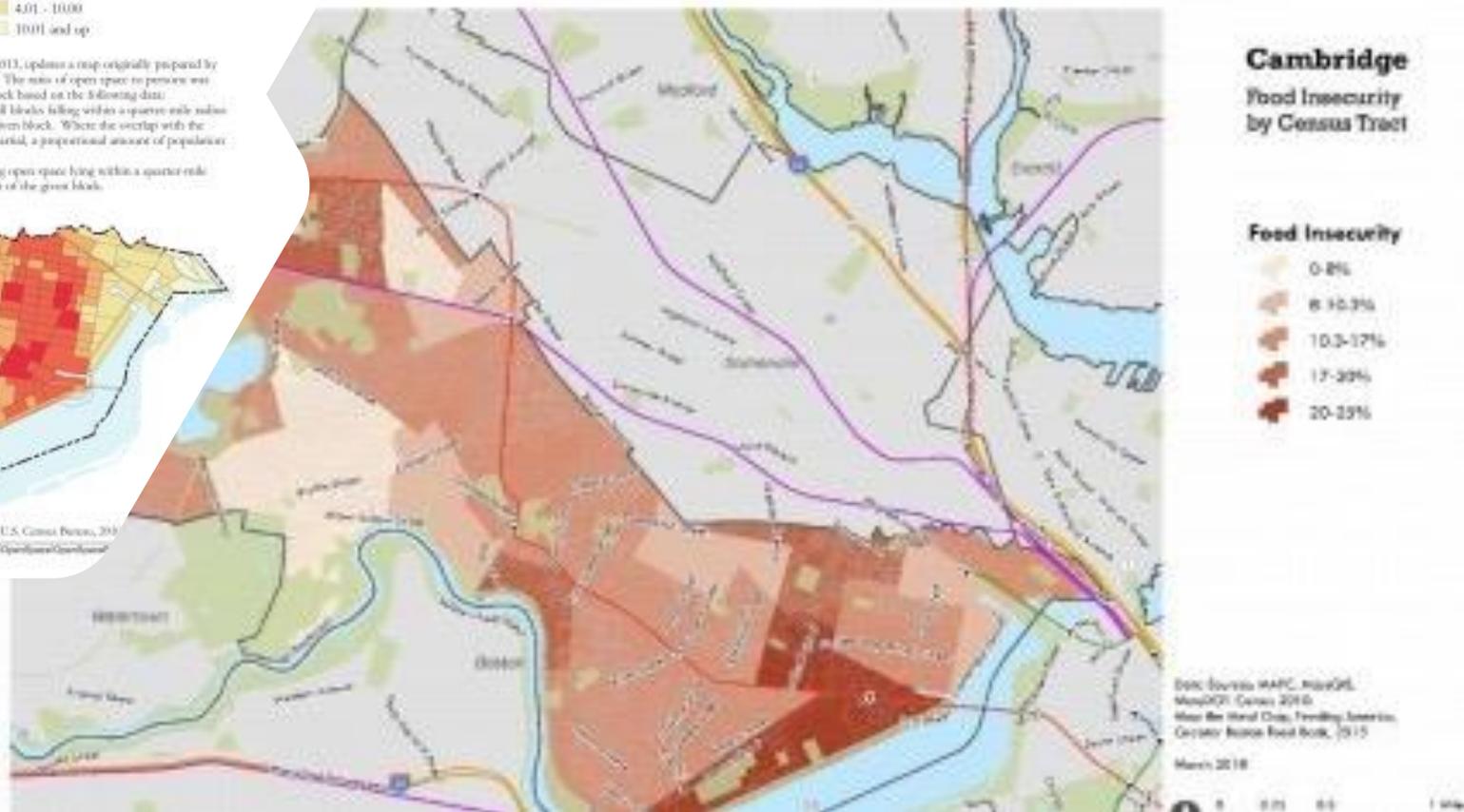
2030: Extreme heat in the heart of Cambridge.

Open Space



... rates vary across the City. The Port and ... include census tracts with the highest rates (21 and 25 percent respectively). Portions of

Food Insecurity by Census Tract



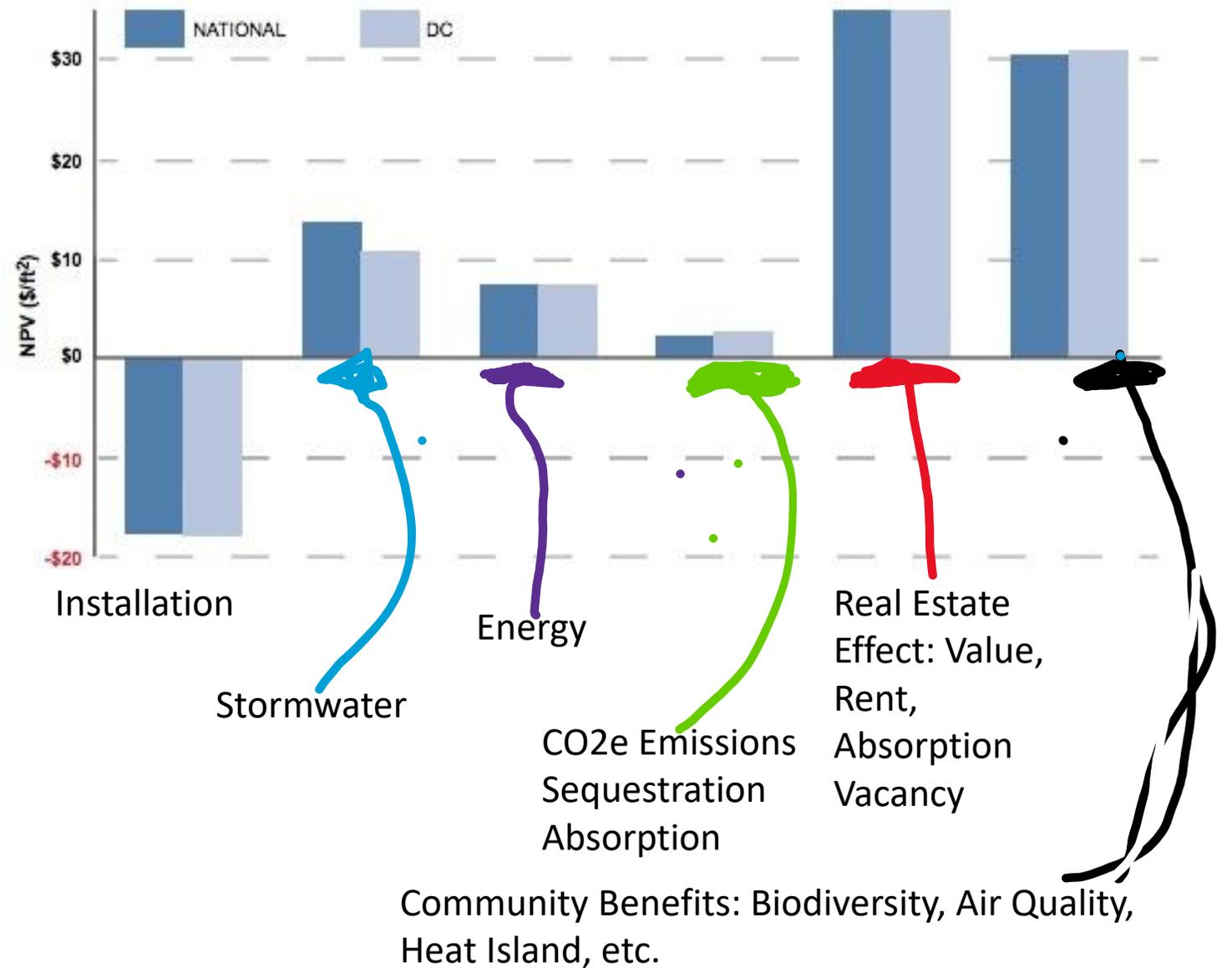
Cambridge Food Insecurity

1-in-8 MA residents face food insecurity, 1-in-5 children, with a 59 percent increase in food insecurity since March (Nov. 2020)

Cost-Benefits Analysis of Green Roofs GSA study

Over a 50-year period:

- The installation, replacement and maintenance of a green roof has the greatest negative impact on net present value at a cost of approximately \$18 per square foot of roof.
- Stormwater and energy savings make up for this cost by providing a benefit of approximately \$19 per square foot of roof.
- Benefits to the community have the greatest positive impact on net present value at a savings of almost \$38 per square foot of roof.



WHAT we want in Cambridge

GREEN ROOFS like these cities have

Chicago

New York

Washington, D.C.

Denver

Seattle

Portland, Oregon

+

Many other U.S. Cities

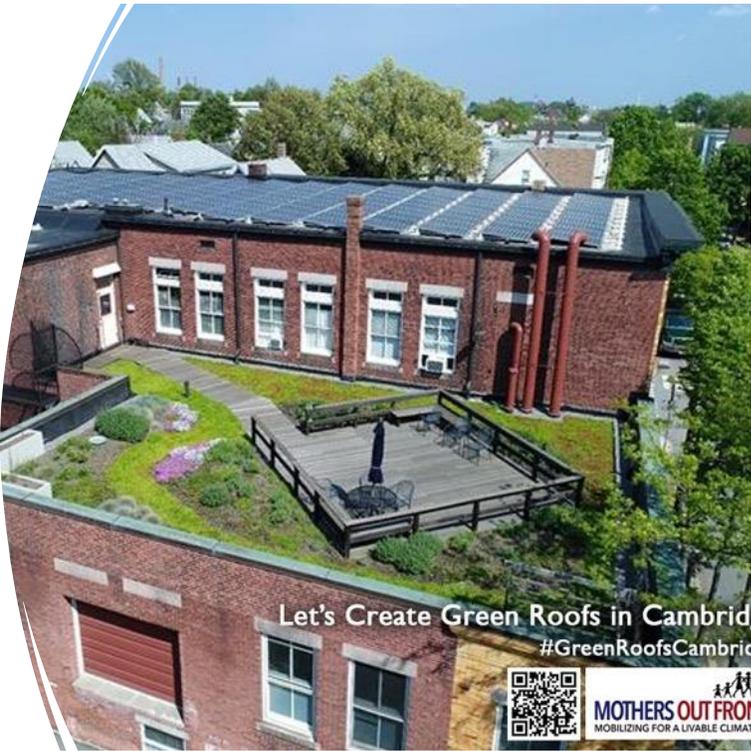
+

Many international cities



WHAT can our GREEN ROOFS VISION look like in Cambridge?

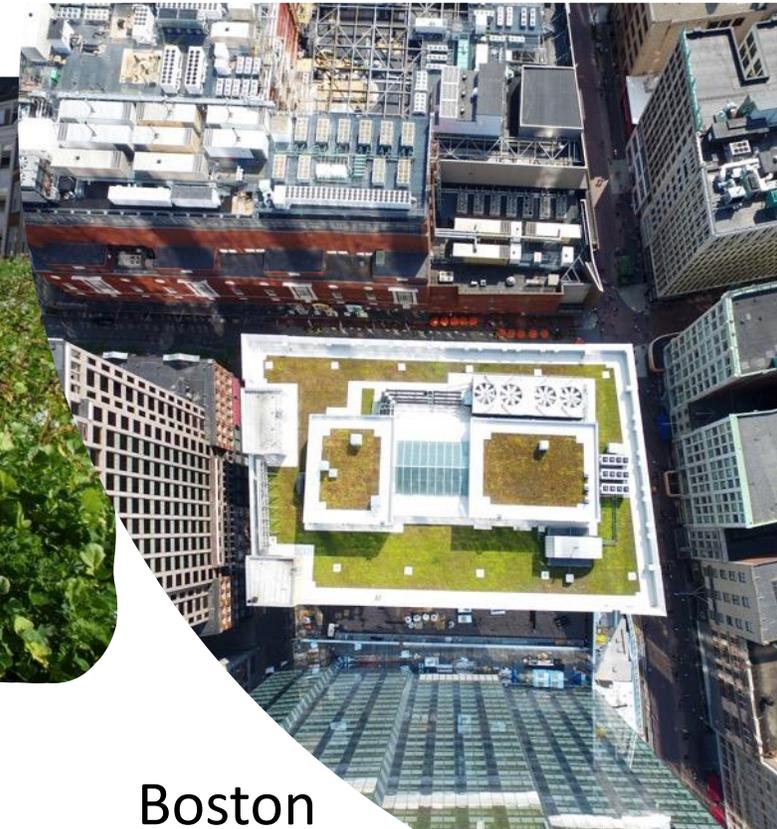
We don't need to travel far to find out.



Somerville



Harvard Business School, Allston.



Boston

BioSolar: Plants and Panels



HOW TO MAKE A GREEN ROOF

Watch the making of this green roof at MIT ...

[How to Make a GREEN ROOF](#)

HOW do we make more GREEN ROOFS happen in Cambridge?

- Cambridge City Council passes revised Green Roof ordinance
- Planning Board sends positive recommendation for Green Roof revised ordinance to the City Council

How?

By listening to residents of Cambridge.

Each time they vote on how to spend Cambridge's money, **GREEN** wins!

PB Cycle 7

Thank you for voting for this year's PB projects!

This year's winning projects are:

1. Urban Micro-Forests for Cambridge (\$85,000)
2. Rain Gardens for Resiliency (\$120,000)
3. Bridging the Digital Divide (\$95,000)
4. Bike Signals at Busy Intersections (\$40,000)
5. Keep Cambridge Cleaner (\$45,000)
6. Swinging into Inclusivity (\$40,000)
7. Pedestrian Controlled Crosswalk Lights (\$100,000)

2019: Close the Canopy (100 trees)

2018: Trees, Please (100 trees); Rain Gardens for Resiliency

2017: 100 Trees for a Cleaner, Greener Cambridge; Jade Chain: Living Moss Walls to Combat Pollution

2016: Solar Power Shines (solar panels on main library roof)

2014: 100 Healthy Trees for a Healthy Cambridge



Pete Ellis, Recover Green Roofs



Elizabeth Hart Morris, President of GRiT (Green Roof info Think Tank), professional roofer